

# SAFETY

## IN NUMBERS

### Why your reaction time matters at speed

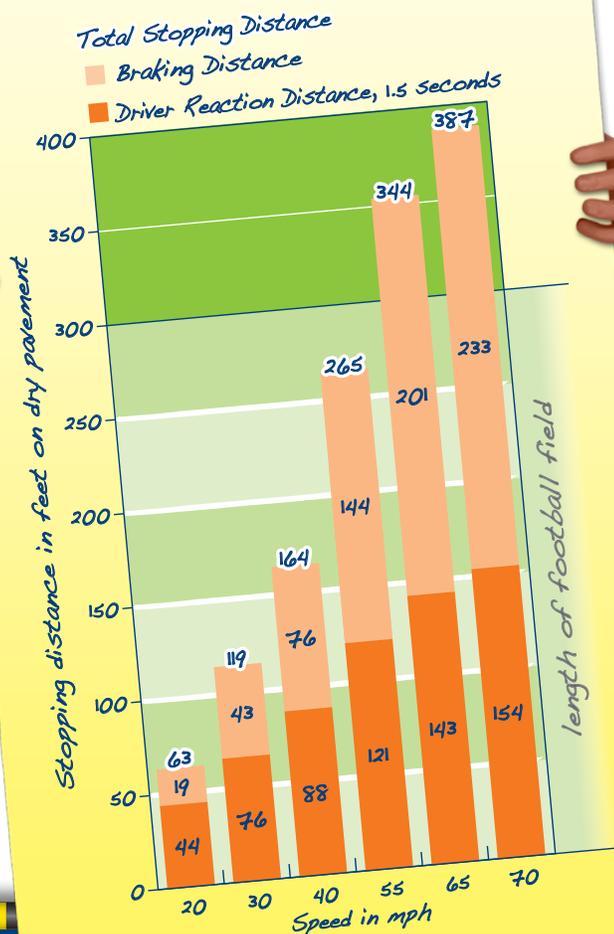
Speed matters in a crash. A crash at higher speed contains more energy that translates directly into more damage to you and your vehicle. Speed matters when you need to brake. Your own reaction time (how quickly you perceive a threat and then decide what action to take) takes place before you put your foot on the brake. Then the mechanical actions of the vehicle, the conditions of the road, the weight of your vehicle, and the condition of your tires determine how long it takes to stop. Your car continues to cover ground – at speed. The higher the speed, the more ground you will cover during both your reaction time and the actual braking time of your vehicle.

A typical reaction time to perceive a threat such as a deer or a child running into the road is about 3/4 second, and then you add another 3/4 second to decide to act and move your foot to the brake pedal – that’s 1.5 seconds so far. At 55 mph, the distance traveled is 121 feet. Only then does the car begin to slow. On dry pavement that takes 4 1/2 seconds, traveling another 144 feet, but if it’s wet, you’ll travel 183 feet. You can do the math – it has taken about as long as a football field to stop your car at 55 mph (265 and 303 feet), and that is assuming you were alert. At 30 mph, it is about half a football field.

For more information, visit:

[www.NHTSA.gov](http://www.NHTSA.gov)

Total stopping distance in feet at various speeds (mph), by the time (distance) it takes the driver to react plus the braking distance. The driver takes the same amount of time to react regardless of speed. As speed doubles, stopping distance quadruples.



# THE PROBLEM



How often should  
**POLICE ENFORCE**  
the **SPEED LIMIT**?

All the time	48%
Often	30%
Sometimes	18%
Rarely, never, or not sure	4%

## REASONS DRIVERS GIVE FOR SPEEDING

I'm late	35%
Emergency/illness	31%
Not paying attention	10%
In a hurry	7%
Traffic flow	7%

Locations where  
**SPEED CAMERAS**  
may be useful



School zone	86%
Place with many accidents	84%
Construction zone	74%
Hazardous for officer to stop a vehicle	70%
Where stopping could cause congestion	63%

## What data tells us

- Of the total 5.7 million crashes in 2013, one-third (32% or 1.8 million) were rear-end crashes, where stopping distance mattered. More people (503,000) were injured in rear-end crashes than any other type of crash.
- In 2013, speeding was a contributing factor in 29 percent of all fatal crashes, and 9,613 lives were lost. Speeding-related fatalities decreased by 2 percent from 2012. They have been about one-third of all fatal crashes since 2002.
- The youngest males are most likely to die in speeding-related crashes: 15- to 20-year-old males (35%), 21- to 24-year-old males (35%), and 25- to 34-year-old males (30%). There is a steady drop with age for males.
- Up to age 34, almost twice as many males die in speeding crashes than females.
- Most speeding-related fatalities occur in crashes on non-interstate highways. Of those who die in run-off-the-road crashes, consistently more were speeding on curves than not speeding. The greatest proportion of speeding-related fatal crashes occur between midnight and 3 a.m.

## Speeding and alcohol

- In 2013, almost 3 in 4 (74%) of speeding drivers involved in fatal crashes between midnight and 3 a.m. were alcohol-impaired (blood alcohol concentration [BAC] of .08 g/dL or higher) compared to 43 percent of non-speeding drivers.
- One-third (34%) of all motorcycle riders involved in fatal crashes were speeding, more than any other vehicle type. Thirteen percent of all motorcycle riders who died were speeding and had BACs of .08 g/dL or higher, compared to 10 percent for drivers of passenger cars, 8 percent for light trucks, and less than 0.5 percent for large trucks.
- More than 1 in 4 (28%) of the speeding drivers under age 21 involved in fatal crashes also had BACs of .08 g/dL or higher, even though Zero Tolerance laws are in effect in every State.

## What people tell us

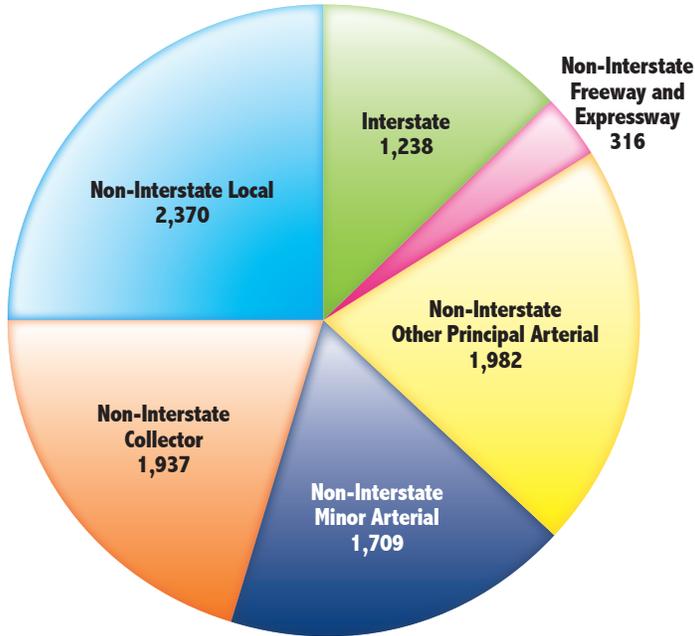
According to NHTSA's nationally representative telephone survey, three broad categories characterize drivers in 2011 (*2011 National Survey of Speeding Attitudes and Behaviors*).

- **Self-professed speeders** say they sometimes or often drive 15 mph over the speed limit\* on divided highways, tend to pass other cars more often than being passed, keep up with the fast traffic, and were stopped for speeding in the past year. Speeders account for 3 in 10 drivers (30%), or about 63.6 million American drivers.
- **Nonspeeders** also account for 3 in 10 drivers (30%), about 63.6 million American drivers.
- **Sometime speeders**, who are in the middle, say they pass other cars and are passed about equally, keep up with the fast traffic or stay with slower traffic about equally, will exceed 15 mph on divided highways on occasion, and were stopped for speeding in the past year. Sometime speeders make up the majority of drivers, 4 in 10 (40%), almost 85 million American drivers.
- Speeders were more likely
  - to engage in other risky behaviors (no seat belt, drinking and driving, or using a cell phone while driving); and
  - to have been injured in a crash while driving.
- The percentage of drivers who reported that they drove every day or almost every day has steadily dropped from 88 percent in 1997 to 83 percent in 2002 to 81 percent in 2011. Drivers who say they tend to pass other cars have also dropped (31%, 30%, and 27%, respectively).
- Enjoyment of driving fast appears to have decreased over time (40%, 34%, and 27%) while worry about having a crash has held steady (47%, 46%, and 48%).
- In the past 5 years, over 6.3 million drivers (3%) say they have been in a speeding-related crash and 2.1 million drivers (1%) have been in two or more speeding-related crashes.
- The proportion of drivers who received speeding tickets has been relatively constant (61%, 62%, 68%) over these years.

\*A speed limit is the maximum legal driving speed allowed under ideal conditions. If construction or bad weather make that speed unsafe, the law requires you to drive at a safe speed that is slower than the posted limit.

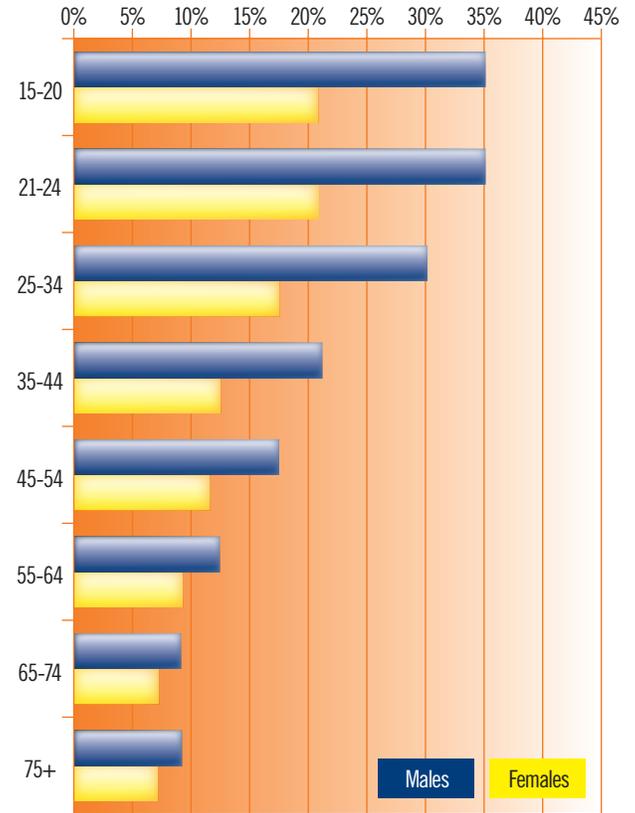


## Speeding-Related Fatalities by Roadway Function Class, 2013



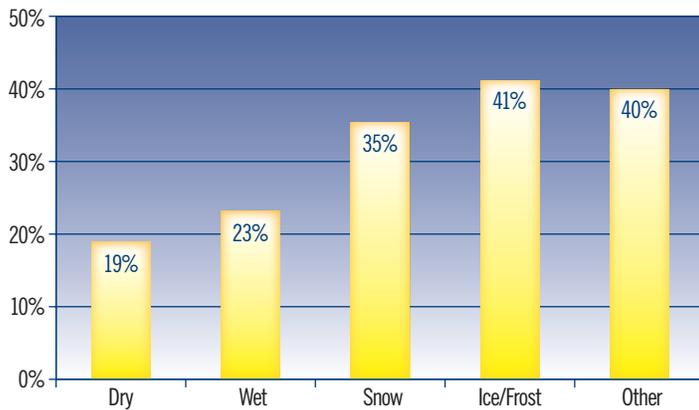
Source: FARS 2013 ARF  
 Note: Fatalities on unknown function class not included.

## Percentage of Speeding Drivers in Fatal Crashes, by Age and Gender, 2013

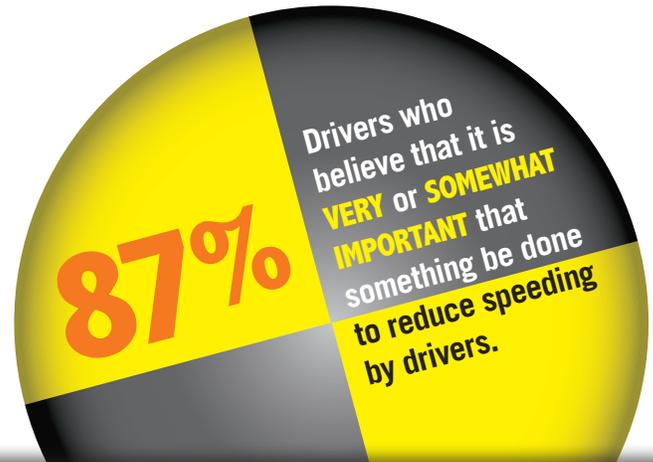


Source: FARS 2013 ARF

## Percentage of Speeding Drivers in Fatal Crashes, by Roadway Surface Condition, 2013



Source: FARS 2013 ARF  
 Note: Other road surface condition includes sand, water, oil, slush, mud, dirt, gravel, and other.



# WHAT YOU CAN DO

## We know what works

NHTSA's [Countermeasures That Work](#) recommends effective actions that communities can take to reduce speeding.

## Drivers can

- Remember that even before you can begin an evasive maneuver or braking, your reaction time will use up valuable ground. The higher the speed, the more ground you will cover in that first critical second and a half, and the longer it will take to stop your vehicle. These are critical moments when you may be able to avoid a crash.
- Know that every time your speed doubles, your stopping distance quadruples.
- Consider that you need more time to stop bigger, heavier vehicles, when you are going downhill, or are on wet, slippery, or uneven pavement. Make sure you give large trucks ample room when pulling in front of them.
- Be aware that when you see the brake lights of the car in front of you, that driver has already reacted, and you will end up closer because you still have to begin to move your foot to the brakes.
- Pay closer attention to your speedometer, especially before entering a curve where your vehicle is more likely to leave the road. Apply brakes before the curve.

- On multi-lane highways with traffic, find a group of cars traveling within the speed limit and keep pace with cars around you. Vehicles moving at about the same speed are less likely to come into conflict, resulting in safer, more efficient travel.
- Be sure to drive the appropriate speed for the road conditions, even if you have to drive slower than the posted speed limit.

## Parents can

- Talk to your teens about other teens who have overestimated their driving abilities and underestimated stopping distances.
- Drive the speed limit to be a good role model, prevent crashes, and save money. Any crash is costly in dollars and time. There is the time you have to take off from work or school to deal with the insurance company and repairs, and to find alternative transportation. If there are injuries, the costs increase even more.

## Law Enforcement Officers can

- Write tickets for speeding, because you change many drivers' behaviors. Drivers who speed are also less likely to wear their seat belts and are more likely to be alcohol-impaired, especially at night. Drivers who get warnings, on the other hand, believe they can drive more mph over the speed limit before they will get a ticket.
- Include a discussion of stopping distances to educate speeding motorists at roadside stops.

- Increase your visibility at high crash locations, because motorists will slow whenever they see a police car.

## States and communities can

- Adopt a comprehensive approach to changing drivers' speeding behaviors by encouraging planners, engineers, law enforcement, and communicators to work together. Review NHTSA, FHWA, and FMCSA's new Speed Management Plan. Just updated, it describes data and data-driven approaches, research and evaluation, technology, enforcement and adjudication, engineering, and education and communications.

## Technologies can

- Provide warnings to assist the driver. Car technologies are improving—some provide forward collision warnings and newer technologies provide crash-imminent braking.

Drivers see **BENEFITS**  
in **DRIVING** at or near  
the **SPEED LIMIT**

**8 in 10**  
believe it makes it easier to  
avoid dangerous situations

**8 in 10**  
believe it reduces their chances  
of being in a crash

**3 in 4**  
believe it uses less fuel

For more information, visit:  
[www.NHTSA.gov](http://www.NHTSA.gov)

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